



Oconee County South Carolina Residential Building Codes Checklist

The following list is a guide to help builders, contractors and homeowners through the inspection process while using the 2021 South Carolina Residential Code (*2021 International Residential Code*). This guide is not all-inclusive and should not be used as a replacement for the IRC. The IRC is available online at Codes.iccsafe.org.

List of Required Inspections

Below is a list of inspections required by the Oconee County Building Codes Department. It is the responsibility of the Builder, Permit Holder, or their Authorized Agent to schedule their inspections by calling the office at **864-718-1005, prior to 4pm. (Do not call inspectors to schedule inspections)**. Do not schedule your inspections unless **ALL** work is complete. If a scheduled inspection is not ready and work not completed at the time of inspection, a **\$75** fee may be charged to the permit and will need to be paid prior to scheduling the next inspection. If the work is not completed, **NO PARTIAL** inspection will be performed or any type of walkthrough. **We will NOT provide a punch list/a punch list is the permit holders' responsibility to make.**

Be aware that South Carolina adopts current codes. We will inform contractors when a new addition of the code will be enforced. If you want to be proactive, **Significant Code Change information** is available online.

Inspections:

1. **Footing Inspection** (House footings, accessory detached building footings, deck footings)
2. **Foundation Steel Inspection-If applicable** (Pictures of forms with steel placement will be accepted) (If the foundation wall is over 10', engineering design is required and pictures will not be accepted)

3. **Foundation/Waterproofing Inspection**
4. **Pre-Slab/Pre-Garage Slab/Pre-Basement Slab/Monolithic Slab** (*Oconee County inspects basement, garage and porch slabs*)
5. **Plumbing Under Slab Inspection** (If applicable)
6. **Electrical Under Slab Inspection** (If applicable)
7. **Envelope/Roof Inspection** (This inspection can be included with your Framing Inspection)
8. **Framing Rough Inspection** (Includes Mechanical, Electrical, Gas and Plumbing)
9. **NO Insulation Inspection Required** (Insulation will need to be placed behind tubs, showers and fire chase framing on exterior walls for the framing rough in inspection. We will still inspect any insulation if scheduled)
10. **Deck Inspection** (Deck footings can also be inspected, can be included with the house footing inspection)
11. **Building Final Inspection**

Footing Inspection/Monolithic Slab

2021 IRC R401-R403

1. A portable toilet must be on site.
2. All silt fencing for sediment control measures must be in place.
3. A gravel drive for equipment needed to the job site, this reduces the amount of mud and dirt on the public roadway.
4. All setbacks to be approved by the Planning and Zoning Department. (If footings are poured and setbacks not met, you may be subject to concrete removal). This is most relevant for lakefront property and subdivisions.
5. **R319.1** Site address numbers to be posted at the road.
6. Footing inspection to be made after the footing trenches are excavated and forms or bulkheads (if applicable) are in place.
7. **R403.1.4** All footings must be 12" below undisturbed soil and must have grade pins marking the depth of the projected concrete.
8. All reinforcement steel, when necessary, must be in place and anchored. **This inspection must be completed prior to pouring concrete.**
9. **E3608.1.2** Structures with reinforcing steel that is ½" or larger and 20' or longer, must have a grounding electrode system installed per **National Electric Code 250.50 (3)**. This will be inspected at the same time as the footing inspection. Generally, a bare #4 copper conductor is bonded to the rebar in the location of the future electrical service. This conductor will need to be an adequate length to reach the service. (Recommend installing the conductor in (2) locations).
10. **R403** All footings shall be clear of debris, water and vegetation. Be aware of the slope limitations in footings per section **R403.1.5**.
11. If installing footings per engineered plans, have all documents on site **AND** upload to the permit file.
12. **R403.1.3.3 and figure R403.1 (1)** If monolithic footing (slab on grade) construction is used,

base course (if applicable) must be completed and **ASTM E1745** 10 mil vapor barrier installed, lapped properly and penetrations taped. The maximum thickness of the footings from top to form shall be 16" for masonry veneer and 18" for other cladding. See section **R404.1.6 and R317.1**.

Foundation and Waterproofing/Damp proofing

2021 IRC, R404-R408

Masonry Foundation and Concrete Wall Inspection (Walls over 10' require engineering)

1. The foundation block must be completed, and be continuous over any steps or grade changes.
2. Piers must be complete and any brick or other veneer must also be in place.
3. Pier caps must be solid and meet the minimum current SC adopted codes.
4. If reinforcement steel is required for the foundation, a rebar inspection is required prior to filling cells or pouring concrete walls.
5. All bonding or other lateral support of intersection walls must be complete and visible.
6. All form boards must be removed for the inspection. The top of the footings must be clean and clearly visible for "Cast in Place" concrete walls, all forms and reinforcing steel must be in place and ready for inspection prior to pouring concrete.
7. Foundation anchorage per **R403.1.6** (J bolts 6' OC, within 1' of butt joints and in the middle 3rd of the sill plate) or alternate anchors are to be installed per the manufacturer specs.
8. **R406 and R405.1** Basements must be inspected for waterproofing method, drains, gravel and filter cloth before being backfilled.
9. **R406** Crawlspace must have damp proofing to finished grade. This will also include the inside face of the garage foundation wall adjacent to the crawlspace.
10. Pier and Curtain Foundation to be in compliance with section **R404.1.5.3** (Additional framing is required for this type of foundation) If not this prescriptive method, engineered design will be needed.

Plumbing Under Slab

2021 IRC, P2501-P2609.5, P2719, P2901-P3201.7

1. All rough plumbing that will be concealed under the slab will need a water test to a point no less than 10' above the highest fitting connection. (No air pressure test allowed for plastic piping). Vacuum testing can also be done, see section **P2503.5.1 #3**.
2. **P3002.3.1** The building drain shall maintain a 2% slope.
3. **P2604** All trenches supporting drains or water supply piping shall be free of sharp rocks or construction materials that could cause physical damage. Backfill for trenches shall be free of rocks, concrete and construction debris.
4. Pipes that pass through foundation walls shall be protected by a sleeve or relieving arch.
5. All water supply piping to be completed and tested as well.

Electrical Under Slab

2021 Table E3803.1-E3803.11

1. All electrical under slab wiring to be installed in raceways.
2. All raceways are to be sealed.
3. All insulated conductors and cables to be listed for wet locations. Exception: MC Cable listed for direct burial or concrete encasement can be used.

Monolithic Slab/Basement/Garage/Porch Slab Inspection

2021 IRC R506, R405

1. To be made prior to pouring a concrete slab.
2. All reinforcing steel, fill material if required, etc. must be in place and ready to inspect before scheduling this inspection.
3. **R506.2.3** Vapor barrier must be installed and be a minimum of 10 mil poly meeting **ASTM E1745 Class A**. The garage slab must also have poly installed. Porch slabs do not require a vapor barrier unless there are future plans to enclose and condition the space. Make sure all joints are lapped 6", and taped around all penetrations.
4. **R506.2.1** A compaction certification is required where fill material exceeds 8" in depth (including but not limited to garages, porches and stoops). Stone and quarry dust backfill will not require a compaction test under 24" or where approved by AHJ.
5. Grade pins or chalk line is needed to verify slab thickness depending on the type of slab inspection.
6. **R309** A slope will be needed for all garage slabs. Flashing to be installed where needed.
7. Porch slabs adjacent to wood framing shall have all flashing installed on inspection.
8. A 4" base course gravel, crushed stone, or course sand is required under any slabs below grade per Section **R506.2.2**.

****Pre-scheduled pour times will not determine the inspector's route. We have our own schedules just like you****

Envelope Inspection Including Roof Covering

2021 IRC R703, Chapter 9

****Note: Do not install any siding until passing this inspection. If installed without inspection, a \$75 fee may be required and you may be required to remove all siding for inspection.****

1. Be sure when scheduling to include the envelope inspection with your Framing Inspection **IF** combining the **(2)** inspections.
2. Take photos of all underlayment and valley flashings prior to installing roof covering so if there are any questions, proof can be provided.

3. This inspection is to be scheduled after all house wrap or envelope system, roof boots and roof covering is installed. If using zip system or a similar product, follow all taping instructions. **(At minimum, the roof underlayment shall be installed. During the Framing inspection, the roof covering MUST be installed).**
4. All windows and doors to be installed and flashed per manufacturer specs. Please have **ALL** installation instructions available.
5. **R703.4-R703.4.1** Pan flashing required for all windows and doors (all windows, house wrap, flashing tape and zip system manufacturers require pan flashing). **Note: If installed without pan flashing, the windows and doors will need to be removed and installed correctly.**
6. All roofing materials to be installed per **Chapter 9.**
7. All roofing materials to be installed per manufacturer specs.
8. **If the roof pitch is 4:12 or less, a roof underlayment inspection will be needed prior to concealing** (most applications require 2 layers of felt or other **approved** materials).
9. All roofing systems to be installed per manufacturer installation guide.
10. Porch/garage slabs to have flashing installed.
11. **R703.4 All deck ledgers shall have "Z" Flashing or Kickout Flashing above ledgers. R507.2.4 See Figure R507.9.1.3 (2)**

Framing

2021 IRC

****Note: If roof covering is not installed on the envelope inspection, it must be installed for the framing inspection. The envelope can be inspected on this inspection.**

1. Fire Blocking/Draft Stopping-**R302.11** (Fire Blocking), **R302.12** (Draft Stopping) (If mineral wool is to be used, the wool is to be installed prior to the framing inspection). If any insulation method is to be used, install per manufacturer, all gaps will need to be sealed. This is applicable for mineral wool and unfaced fiberglass.
2. Room Areas-**R304** Minimum Room Areas, **R305** Ceiling Height.
3. Tempered Window-**R308** Glazing (tempered glass locations)
4. Window Sizes-**R310** Emergency Escape and Rescue Openings
5. Egress-**R311, R311.1** Means of Egress (Egress shall provide a continuous path, unobstructed, from all portions of the house, without traveling through a garage.
6. Stairways, Handrails, Landings-See Section **R311.5-R311.8**, Guards-see Section **R312**
7. Smoke Detectors/Carbon Monoxide-See section **R314** Interconnection, **R314.4** Carbon Monoxide. **R315** (See manufacturer for location requirements). See **NFPA 72**
8. Protection of Wood Against Decay-Section **R317** (Pressure Treated Lumber)
9. Fasteners for Pressure Treated Lumber-**R317.3.1**
10. Floors-See **Chapter 5 of the 2021 IRC. R502** Blocking needed at breaks in floor joist above floor girders. Double rim joist needed above crawlspace openings if no header is used.
11. Concrete Floors-(Slab) See Section **R506**
12. Roof Ceiling Construction: **2021 IRC Chapter 8.** All rafters are to have a minimum of 1.5" bearing on the bottom side. All rafters within attic space are to have collar ties 4' OC. If ridge straps are used, take photos prior to concealing. All rafters are to have uplift resistance per table **R802.11**. All valley, hip and ridge to have proper bearing. A good

reference is the **AWC Conventional Wood Framed Construction Manual**.

13. Roof Ventilation-**R806** (Attic Ventilation)
14. Attic Access-**R807** Openings required when attic space is 30" in height X 30 sq ft. Opening should not be less than 22" wide X 30".
15. Exterior Decks-Section **R507**, also the **American Wood Council 2015 Prescriptive Deck Guide is available online for reference**. Deck ledgers to be fastened per **Table R507.9.1.3 (1)** with a minimum 1/2" lag or bolt. (If using an alternative fastener, install per manufacturers specs). Deck ledgers attached to open web floor trusses to be installed per the **SBCA Deck Ledger Attachment Guide** specs. Deck ledgers cannot support concentrated loads from beams or girders unless engineered. Deck Joist and beams shall have a minimum of 1.5" bearing on wood or metal, and not less than 3" on masonry (**ledger strips will no longer be accepted, joist hangers are required**). Deck lateral load connectors to be installed on all decks per manufacturer. All post to beam connections to be inspected prior to concealing. All beam and joist spans to comply with the tables. All deck ledgers to be flashed with approved corrosion resistant material. **Z Flashing or kick out flashing needed above all deck ledgers**.
16. Fastening Schedule-**R602.3.1 (1)-(4)**. All framing fastening schedules to comply with this section.
17. Structural Mending Plate-**R602.6.1**. When an interior or exterior bearing wall top plate is cut 50% or more, an approved metal tie is required. (Install all nails per manufacturer)
18. Girder and Header Spans-**Table R602.7 (1)-(3)**. This section will also give you the number of jack studs required. King Studs-**Table R602.7.5**. Full Height studs will be enforced.
19. Exterior Wall Sheathing-All wall sheathing (wood structural panels) to be fastened per **Table R602.3 (3)**. If using Zip system, install per manufacturer specs and tape all joints.
20. Chimneys and Fireplaces-See **Chapter 10**. All masonry fireplaces shall be in compliance with **R1001**, Masonry Chimneys **R1003**, Factory Built Chimneys **R1005**. All factory built chimneys and fireplaces shall be listed and labeled, **AND** shall be installed and terminated in accordance with the manufacturer's instructions. Be aware of all clearances and makeup air requirements. All documents shall be on site at the time of inspection.
21. All insulation shall be installed in fire chase framing in exterior walls. Insulation shall be supported vertically. Make sure all clearances are met per manufacturer. (Additional clearances may be required for the type of insulation used). If foam plastic insulation is used, an additional inspection will be required once completed.

Engineered/Designed Framing Systems

2021 IRC

1. Roof Trusses-**R802.10-R802.11.1.1**; All truss engineering spec sheets needed on site. The truss package should be printed out and in order, including the truss layout. **Note: Any altered or damaged trusses will need a designed fix from the manufacturer and be stamped**. Complete all bracing, girder fastening schedules, and upfit connectors per specs. Be aware of bearing points.
2. Floor Trusses-**R502.11-R502.11.4**; Have all floor truss specs available and on site. Complete all bracing. Verify that all trusses have minimum bearing per specs (open web trusses). Any deck ledger attachment to be made per **SBCA Deck Ledger Attachment**

Guide.

3. Engineered I Joist-**R502.8.2**; Have manufacturers specs on site. Please be aware of hole size limitations from bearing points. Do not cut through top of bottom cords without a designed fix from the manufacturer. All EWP manufacturers have minimum requirements, use their install guide during construction. Be aware of all bearing points and blocking requirements. Deck ledger attachment to be installed per manufacturer.

Rough Electrical

2021 IRC, Chapters 36-42

1. NM cable is to be protected with nail guards within 1.25" of the stud face.
2. NM to be secured within 12" of terminations (outlets).
3. NM to be protected from physical damage. Do not run across gusset plates of trusses or any other object that could damage the outer jacket. Also be aware protection is required at attic accesses.
4. Any damage to the insulation or outer sheathing of wiring will need to be repaired or replaced.
5. **E3802.6** NM to be supported and secured (stapled) 4.5' OC. vertical and horizontal. NM to be supported in accessible portions of attics, lying perpendicular across rafters is not the definition of support; see the **2020 NEC** for NM requirements and definition and secured and supported.
6. All top and bottom plate electrical penetrations to be fire caulked or fire foamed. **E3402**
7. More than (2) NM cables through sealed penetrations in wood must be derated. **E3705.4.4**
8. Box volume calculations/conductor fill. There are a maximum number of conductors that can terminate in an outlet depending on the volume. See **Table E3905.12.1 & E3905.12.2.1**, and sections **E3905.12-E3905.12.3.2**.
9. All metal boxes are to be connected to the Equipment Grounding Conductor.
10. Required lighting outlets needed per Section **E3903**.
11. All areas with equipment require a receptacle and lighting.
12. Wall receptacles and spacing requirements, see Section **E3901-E3901.2.3**; A minimum of one hallway receptacle is required when 10' or more in length. See Section **E3901.10**.
13. Kitchen counter, island and peninsula receptacle spacing, See Section **E3901.2.4-E3901.4.3** **(This is one of the most common code violations and can be costly when discovered on the building final inspection. The cabinets, countertops and appliances are not installed on the rough inspection, so verify your spacing)**. A minimum of (2) 20 amp circuits are needed to serve the kitchen counter small appliances, these circuits can also serve the kitchen, pantry, dining and breakfast area receptacles; See Section **E3703.2**. There are also some exceptions. Kitchen islands 6' or more in length now require a receptacle on both ends.
14. Outdoor receptacles are needed per Section **E3901.7**.
15. A minimum of one receptacle is needed for the laundry room; this receptacle shall be on a dedicated 20 amp circuit and only serve the receptacles in the laundry room. See Section **E3901.8 and E3703.3**.
16. Receptacles shall not be installed within 3' horizontally and 8' vertically from the top of the bathtub rim or shower stall. See Section **E4002.11**; Bathtub and Shower Space: there are some exceptions.

17. A minimum of (1) 20 amp bathroom branch circuit is required to serve only receptacles. Exception: A single bathroom dedicated circuit can serve the lighting and receptacles. See Section **E3703.4**.
18. **E3703.5** Not less than (1) dedicated 20 amp circuit shall be installed to supply receptacle outlets located in attached and detached garages. This circuit shall supply no other outlets. **E3901.9**. There shall be a minimum of (1) receptacle per vehicle bay.
19. GFCI protection is required for bathroom, garage (including the garage openers) and accessory buildings, outdoors, crawl space, unfinished basements, kitchens, within 6' of a sink edge, bathtub or shower stall, laundry area, kitchen and disposal receptacles. See Section **E3902-E3902.14**
20. CAFCI (Combination Arc Fault) is required for lighting outlets and receptacle outlets in the following areas: Family rooms, living and dining rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, and similar rooms, including the smoke detector circuit. **(This is a most common code violation. Be aware that there are many types of breakers available and methods to afford CAFCI protection. Look for CAFCI breakers, not to be confused with Branch Feeder Type AFCI)**. See Section **E3902.19-E3902.21**. (The CAFCI breakers will not have to be installed on the framing inspection)
21. All receptacles below 5.5' are to be type TR (tamper resistant) indoors and outdoors. **E4002.14**
22. All outdoor receptacles are to be type TR, GFCI and WR (weather resistant). **E4002.9-GFCI**
23. All wet location receptacles are to be installed with Extra Duty covers. **E4002.9**
24. All damp location receptacles are to be installed with Damp Location Covers. **E4002.8**
25. Install Smoke/Carbon outlets per Section **R314-R315**. They must be hardwired and interconnected for new construction.
26. Service and sub panels must be installed at the time of inspection. They will need to be installed per **Chapter 34 and 36**.
27. A main bonding jumper is needed in most main disconnect panels unless otherwise integrated.
28. Equipment grounds and neutrals are to be isolated from one another in all Sub Panels.
29. Close all unused openings in equipment panels.
30. All service and feeder conductors are to be terminated and torqued per specs. It is recommended that a corrosion inhibitor is applied to all conductor terminations. Any future generator conductors will need to terminate in a junction box. A minimum of (1) 20 amp GFCI protected receptacle shall be installed for power release.
31. All panels are to have proper working space clearances. **E3405**
32. Service conductors are to be sized properly and identified with the correct insulation type or electrical tape.
33. Size the grounding electrode conductor properly. **E3603.4**
34. (2) ground rods will need to be installed and 6' apart, a concrete encased electrode (footing steel) must be used if rebar is installed in the footing. **E3608**
35. All metal piping, water piping and gas piping likely to become energized shall be properly bonded and in an accessible location. **E3609**
36. **E3609.3.1** An Intersystem Bonding Termination shall be provided at the service equipment enclosure, main disconnect and meter enclosure. This is for bonding of other equipment.
37. Range and dryer circuits shall be (4) wire, the frames shall be connected to the equipment grounding conductor per **2020 NEC 250 & Section E3908**.
38. Buildings or structures (accessory buildings/detached garages) supplied by feeders or branch circuits shall have a grounding electrode system installed per **E3607.3**.

39. Smoke/CO Detector outlets are to be installed per **R314-R315** and located per **R314.3** and **R315.3**. If the ceiling height in the room adjacent to the hallway outside the bedrooms exceeds the ceiling height by 2' or more, an additional detector will be required.

Plumbing

2021 IRC Chapter 25-32

1. Rough plumbing is to be tested per **P2503.5.1**. The DWV system shall be filled with water to a point no less than 10' above the highest wet fitting in the system, or a vacuum test per Section **P2503.5.1 #3**. The test will also include the basement. The original plumbing under slab water test will not suffice, a new test is needed.
2. Water supply system piping shall be tested per **P2503.7**. PEX piping will need to be tested at 100 psi. Copper piping to be tested at 50 psi. CPVC to be tested at working pressure.
3. Shower liners shall be tested per **P2503.6**.
4. All tubs shall be installed on the rough inspection and be filled with water; a cap will be needed for the overflow. **See #1**.
5. Insulation is to be installed and supported behind factory built tubs and showers and exterior walls for rough inspection.
6. Guards shall be installed if notches or holes are cut in studs within 1.25" of the stud face. Such guards shall extend 2" above the bottom plates and 2" below the top plates. See Section **P2603.2.1**. For exterior and interior bearing walls with 50% top plate cut through, structural mending plates will be needed with integrated guards.
7. **R602.6** Stud shoes will be required on all exterior walls and bearing walls with 40% bored holes and 60% interior nonbearing walls.
8. Top and bottom plate penetrations where piping is passing through shall be fire caulked per **R302.11**.
9. All piping through foundation walls will need a relieving arch or pipe sleeve (**2**) sizes greater than the pipe passing through the wall. See Section **P2603.4**. Seal the annular space for pipe sleeves, see Section **P2606.1**.
10. Water supply piping installed beyond the insulated portions of the thermal envelope shall be insulated; this includes the uninsulated garage walls and attic space. See Section **P2603.5**.
11. **P2604** Water service piping in trenches shall be installed no less than 12" deep.
12. All plumbing piping is to be supported per Table **P2605.1**. PEX shall be supported 32" OC horizontal and 5" OC vertical. See manufacturer's instructions.
13. Piping penetrating through the roof shall be flashed per **P2607.1**.
14. Piping through the exterior walls shall be sealed with a waterproofed sealant per **P2607.2**.
15. All plumbing fixtures are to be installed per **Chapter 27**.
16. Water supply piping is to be installed per **Chapter 29**.
17. All water service piping shall have a main shutoff valve per Section **P2903.9.1**.
18. Shutoff valves shall be installed at each fixture per Section **P2903.9.3**.
19. Water hammer arrestors shall be installed per Section **P2903.5**.
20. PVC shall not be used as water distribution piping. See Table **P2906.5** for a list of code compliant materials.
21. The sanitary drainage system of the dwelling shall be in accordance with **Chapter 30**.
22. All DWV joints and connections shall comply with Section **P3003**. If clear solvent cement is

used, the cement used will need to be on site. If making a connection between (2) types of materials, the cement used will need to be on site. Any mechanical joints will need to be installed per manufacturer's instructions.

23. Fittings for change in direction needed per Table **P3005.1**. **The most common code violation is the Sanitary Tee Fitting, it cannot be installed (vertical to horizontal) or (horizontal to horizontal).**
24. There shall be a cleanout within 10' of the building drain, around building sewer junction per Section **P3005.2.3**. The cleanout shall be in the direction of flow or a two-way cleanout can be installed per **P3005.2.8**.
25. Cleanouts where changes in direction occur are to be installed per Section **P3005.2.4**.
26. All required cleanouts shall have access and clearances per Section **P3005.2.9-P3005.2.10**.
27. Horizontal drainage pipe slope shall be 2% for pipes 2.5" or less and not less than 1% for pipes 3" or more. See Section **P3005.3**.
28. The venting system shall comply with **Chapter 31**. Every trap or trapped fixture shall be vented. All vent terminals shall comply with Section **P3103**. A minimum of (1) vent pipe shall extend to the outdoors per **P3102**. Mechanical vents (**AAV**) shall comply with Section **P3114**.
29. All plumbing traps shall comply with **Chapter 32**.
30. Water Heaters shall comply with **Chapters 20, 24 and 28**.
31. Water Heaters in garages having an ignition source shall be located not less than 18" above the garage floor per **P2801.7**.
32. Water Heaters subject to a horizontal directional change shall be strapped in the upper 1/3 or per manufacturer. Oconee County is in a seismic **Zone B and C**, but if it is elevated on a stand, it will need to be secured.
33. Water Heaters (all appliances) in garages will need to be protected from physical damage by an approved barrier per **M1307.3.1**. **Bollards will be required.**
34. Water Heater disconnecting means to be in accordance with **Chapter 41**.
35. Thermal Expansion control needed per **P2903.4**.

Mechanical

2021 IRC Chapters 13-24

1. Clothes dryer exhaust to be installed per Section **M1502**. Clothes dryer exhaust length shall not exceed 35' and any fitting installed to reduce the total developed length per Table **M1502.4.5.1**.
2. Dryer duct shall be hard piping, **No. 28 gage**.
3. Range hoods shall comply with Section **M1503**.
4. Exhaust ducts and openings shall comply with Section **M1506**. Exhaust shall not terminate within 3' of operable or non-operable windows/openings into the building. Section **M10502.3**. Bath exhaust is exempt from terminating more than 3' from the window.
5. **R303.3** and **M1505** Bathrooms and water closet compartments and other similar rooms shall be supplied with a local exhaust system unless a window is provided with an area of 3 square feet in which half shall be operable. All bath exhaust shall be ducted to the outdoors and the duct joint shall be taped to the unit.
6. **M1307.3.1** Appliances shall not be installed in a location subject to vehicle impact except where protected by approved barriers (**bollards**).

Chimneys and Fireplaces

2021 IRC Chapter 10 and Chapter 18

1. All Chimneys and Fireplaces are to comply with **Chapter 10 and 18**
2. Chimneys shall be provided with crickets where the dimension parallel to the ridgeline is greater than 30" and does not intersect the ridgeline.
3. Chimney terminations are to comply with **R1003.9**.
4. All vent clearances are to comply with the manufacturer's instructions.
5. When passing through a floor or ceiling, vents are to comply with **M1803**.
6. Fireplace hearth and clearances are to comply with **R1001.10** and **R1001.11**.
7. All mantle clearances are to comply with manufacturer's instructions.

Gas

2021 IRC Chapter 24

1. All gas piping to comply with **Chapter 24**.
2. A gas pressure test is needed at 20 psi for natural gas and propane per **G2417.4.1**.
3. Gas piping will need to be bonded, in a non-concealed location, and the size of the bonding jumper will need to be no smaller than 6 AWG copper. The bonding jumper shall be connected to the electrical service grounding electrode system. See Section **G2411**. There are some exceptions, but many of the gas authorities will require gas bonding.
4. All gas appliances are to meet manufacturer's clearances and be installed per manufacturer's instructions.
5. Verify that all combustion, ventilation, and dilution air requirements are met per Section **G2407**.
6. All gas appliances are to meet the location requirements of Section **G2406**.
7. Piping other than black iron shall be protected against physical damage. Piping less than 1.5" from the stud face shall be guarded. Top and bottom plate penetration guards shall extend not less than 4" above the bottom plate and 4" below the top plate. See Section **G2415.7-G2415.7.3**.
8. Gas piping shall be supported per Table **G2424**. CSST shall be supported per the manufacturer's instructions.
9. Gas piping drips shall be installed per **G2419**. Sediment Traps shall be installed per **G2419.4**, and shall be installed at rough inspection and pressure tested.
10. All gas shutoff valves shall be in accessible locations. All shutoff valves shall be within 6' of appliances. See Section **G2420**.
11. All gas appliances are to be vented per manufacturer. See Section **G2427**. Install all vents per manufacturer.
12. Gas vent terminations are to comply with Section **G2427.6.3**.
13. Any outdoor grill will need to be installed per manufacturer's instructions. If gas piping is terminating on an outdoor covered porch or outdoor location you will need to supply all

manufacturer's installation instructions at the time of rough inspection. **Note: Many manufacturers will not allow grills on outdoor covered areas, combustible or non-combustible. Research before installing.**

14. All gas cooking appliances to be installed per **G2447**.

HVAC

2021 IRC Chapter 13-17

1. Appliances shall have accessible working space and have clearances per Section **M1305**.
2. Appliances in attics shall not be located more than 20' from the access door. There shall be a 24" passageway (flooring) to the appliance, there shall not be less than 30" (working platform) for the service area. There are some exceptions, see Section **M1305.1.3**. Note: When building this platform, be aware that R30 insulation is required in attic spaces.
3. Appliances in crawlspaces are not to be located more than 20' from the access door. There are some exceptions, see Section **M1305.1.4**.
4. Attic and crawlspace appliances both require a guarded luminaire and a service receptacle.
5. Any duct in the garage shall be No. 26 gage steel. See Section **R302.5.2**.
6. Any mechanical piping within 1.5" of a framing member shall be guarded per Section **M1308**.
7. All heating and cooling equipment shall be installed per **Chapter 14**.
8. Heating and cooling equipment shall be sized in accordance with **ACCA Manual S and J**, or other **approved** methods.
9. Condensate from cooling equipment shall not discharge to an area that would cause a nuisance. Example: Over a window, through the soffit. See Section **M1411.3**. Insulation will be required on the condensate piping, condensate will occur on this piping in humid areas like the attic and crawlspaces.
10. Cooling equipment pans, drains and water level monitoring devices shall comply with Section **M1411**.
11. **M1411.6** All refrigerant piping shall be insulated with a minimum of R2.5 without voids.
12. **M1411.8** Line sets shall be supported throughout attic and crawlspaces and within 6' of the condensing unit.
13. All duct systems shall comply with **Chapter 16**.
14. Duct joints, seams and connections to comply with **M1601.4.1**.
15. Ducts to be supported per **M1601.4.4**.
16. Per the IECC, duct insulation in attic space shall be **R-8**, and **R-6** in crawlspace.
17. Return air shall comply with section **M1602**.
18. All electrical breakers to be sized in accordance with the equipment manufacturer's specs.
19. Appliance disconnecting means to be in accordance with **Chapter 41**.
20. **E3803.10** All exterior wiring is to be listed for wet locations. The HVAC whip from the disconnect is considered a wet location even in conduit.

Insulation

2009 IECC

1. R-30 required for ceilings.
2. R-13 required for walls.
3. R-19 required for floors.
4. Windows will need low expansion foam perimeter sealing.
5. All insulation is to be installed per manufacturer's instructions.
6. All vertical insulation shall be supported.
7. Insulation in fireplace chase shall be supported and installed per fireplace manufacturer's requirements.
8. Paper backed insulation shall be installed per manufacturer.
9. All foam plastic insulation shall be installed per **R316**. Be aware of all thermal barrier requirements **R316.4**.

Building Final Inspection

2021 IRC and 2009 IECC

1. **All final paperwork shall be turned into the office:** (Final IECC, Insulation, Final Septic and Termite letter)
2. Verify that any pending items from previous inspections are completed. Pending deck items will be inspected. Be sure that items needing inspection are not concealed. If concealed, they will have to be open for inspection.
3. Driveway must be installed with an all weather surface per the **2021 South Carolina Fire Code**.
4. Address numbers shall be posted on House AND Road per **Section R319**.
5. All graspable hand railing, guards, treads and riser height shall be installed and comply with Section **R311-R-312**.
6. Smoke/CO detectors shall be installed per **R314-R315** and checked for interconnection. The circuit in which the detectors are connected shall be CAFCI protected. Verify all alarms are located per **R314.3** and **R315.3**.
7. All receptacles will be checked for polarity, would recommend checking all receptacles prior to the building final inspection.
8. All breakers requiring CACFI protection will be tested. **E3902.16** (Including the smoke detector circuit).
9. All receptacles requiring GFCI protection will be tested. **E3902**
10. All appliances disconnecting means shall be installed per **Chapter 41**.
11. All breakers shall be identified in the main and sub panels including the smoke detector circuit.
12. The IECC (signed) shall be posted in the sub panel per the **2009 IECC**.
13. Outdoor receptacles shall be type **TR, WR, GFCI** protected and in an extra duty cover or

- damp proof cover depending on location.
14. Outdoor under decks subject to weather shall have fan and lighting outlets listed for wet locations. (If using "can" lighting, the lighting shall be listed for wet locations and so shall the junction area to be wet location rated.
 15. All switch and receptacle outlets to have face plates installed.
 16. All lighting outlets to have luminaires installed. Fixtures to have light bulbs installed.
 17. All outdoor censored lighting to be on test mode for inspection.
 18. All required appliances are to be installed, all floor/ceiling registers for HVAC to be installed.
 19. Under stair protection is needed per **R302.7**. Minimum protection is ½" gypsum board for accessible spaces.
 20. Verify that all weather stripping is on exterior doors and doors leading to unconditioned spaces.
 21. All attic access doors and unfinished basement interior doors through the thermal envelope shall be insulated.
 22. All access doors through a garage fire separation shall be fire rated per Section **R302.5.1**. (Manufactured pull down stairs shall be fire rated plywood).
 23. **Garage walls, ceilings and doors shall be fire rated per R302.6.**
 24. Garages in unfinished basements shall be no exception to not have a fire separation per **R302.6**.
 25. Garage doors shall be installed and tested on final.
 26. Bonus room stairs shall not egress through a garage. At minimum there will need to be an egress door to the exterior or passage to the interior of the dwelling, without passage through the garage per **R311**.
 27. All siding shall be completed, openings sealed, and exhaust/intake/vent penetrations completed. (All siding to be installed per manufacturer installation guide)
 28. All hose connections shall have a non-removable anti-siphon device installed or integrated into the fixture per **P2902.4.3**. (Atmospheric-type or pressure vacuum breaker)
 29. Any device, hose bibs, equipment, siding, decking, electrical, etc.....installed on the exterior of a building shall be installed with corrosion resistant fasteners.
 30. Water Heaters shall be installed per the manufacturer's instructions. Relief valve piping shall be installed per **P2804** (Discharge through an air gap in the same room as the water heater). There is a list of other requirements in this section. See the **2021 IRC**.
 31. All ranges shall have anti-tip devices installed.
 32. All gas appliances shall be operable.
 33. All emergency escape and rescue openings shall be verified and comply with Section **R310**. (Windows and Doors)
 34. Final grading shall be completed and have fall of 6" within the first 10" of the foundation. (Or other **approved** methods) See Section **R401.3**
 35. Housing with gutter systems shall have splash blocks installed or other means of disposing collected roof water away from the foundation. **R801.3**
 36. Verify that all clearances are met from grade to siding. Be aware of mulch or landscaping material fill, this will need removing if clearances are not met **R404.1.6**.
 37. Verify that all clearances are met for any mechanical equipment, vents, panels, openings, etc....
 38. **Retaining Walls: Will be inspected during final. ***Barriers MAY be required*****
Retaining Walls that have 48" of unbalanced fill shall be designed by a South Carolina Engineer. See Section **R404.4**.